X99 Extreme4/3.1

Intel® X99 Chipset

99 Reasons to be Extreme

ASRock

Product Brief

- ASRock Super Alloy
  XXL Aluminum Alloy Heatsink
  Premium 60A Power Choke
  Premium Memory Alloy Choke
  Ultra Dual-N MOSFET (UDM)
  Nichicon 12K Platinum Caps
  Sapphire Black PCB
- Supports Intel® Core™ i7 and Xeon® 18-Core Processors Family for the LGA 2011-3 Socket
- X Series OC Socket, Digi Power, 12 Power Phase design
- Supports Quad Channel DDR4 3200+(OC)
- 3 PCIe 3.0 x16, 1 PCIe 2.0 x16, 1 PCIe 2.0 x1
- Supports AMD 3-Way CrossFireX™ and NVIDIA® 3-Way SLI™
- 7.1 CH HD Audio (Realtek ALC1150 Audio Codec), Supports Purity Sound™ 2 & DTS Connect
- Intel® Gigabit LAN
- 10 SATA3, 1 eSATA, 1 SATA Express, 1 Ultra M.2 (PCIe Gen3 x4 & SATA3)
- 2 USB 3.1 10Gb/s (1*Type-A + 1*Type-C) (Supported by the bundled ASRock USB 3.1/A+C), 6 USB 3.0 (2 Front, 4 Rear), 8 USB 2.0 (4 Front, 4 Rear)
- 1 COM Port Header, 1 TPM Header, 1 Thunderbolt AIC Connector
- Supports ASRock HDD Saver Technology, Full Spike Protection, APP Shop

Detail Specification

Platform	- ATX Form Factor - 2oz Copper PCB - High Density Glass Fabric PCB
Unique Feature	ASRock USB 3.1 - ASRock USB 3.1/A+C (10 Gb/s) ASRock X Series OC Socket ASRock Super Alloy - XXL Aluminum Alloy Heatsink - Premium 60A Power Choke - Premium Memory Alloy Choke (Reduces 70% core loss compared to iron powder choke) - Ultra Dual-N MOSFET (UDM) - Nichicon 12K Platinum Caps (100% Japan made high quality conductive polymer capacitors) - Sapphire Black PCB ASRock Ultra M.2 (PCIe Gen3 x4 & SATA3) ASRock HDD Saver Technology ASRock Full Spike Protection ASRock APP Shop
CPU	- Supports Intel® Core™ i7 and Xeon® 18-Core Processors Family for the LGA 2011-3 Socket - Digi Power design - 12 Power Phase design - Supports Intel® Turbo Boost 2.0 Technology - Supports Untied Overclocking Technology
Chipset	- Intel® X99
Memory	- Quad Channel DDR4 Memory Technology - 8 x DDR4 DIMM Slots - Supports DDR4 3200+(OC)*/2933(OC)/2800(OC)/2400(OC)/2133 non-ECC, un-buffered memory * Please refer to Memory Support List on ASRock's website for more information. (http://www.asrock.com/) - Supports non-ECC RDIMM (Registered DIMM) - Supports DDR4 ECC, un-buffered memory/RDIMM with Intel® Xeon® processors E5 series in the LGA 2011-3 Socket - Max. capacity of system memory: 128GB - Supports Intel® Extreme Memory Profile (XMP) 2.0 - 15μ Gold Contact in DIMM Slots
Expansion Slot	- 3 x PCI Express 3.0 x16 Slots (PCIE1 @ x16 mode; PCIE3 @ x16 mode; PCIE5 @ x8 mode) * If you install CPU with 28 lanes, PCIE1/PCIE3/PCIE5 will run at x16/x8/x4. * If M.2 PCI Express module is installed, PCIE5 slot will be disabled. - 1 x PCI Express 2.0 x16 Slot (PCIE2 @ x4 mode) - 1 x PCI Express 2.0 x1 Slot - Supports AMD Quad CrossFireX™, 3-Way CrossFireX™ and CrossFireX™ - Supports NVIDIA® Quad SLI™, 3-Way SLI™ and SLI™ * If you install CPU with 28 lanes, 3-Way SLI™ is not supported. To support 3-Way SLI™, please install the CPU with 40 lanes. - 15μ Gold Contact in VGA PCIe Slot (PCIE1 and PCIE3)
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec) - Premium Blu-ray Audio support - Supports Surge Protection (ASRock Full Spike Protection) - Supports Purity Sound™ 2 - Nichicon Fine Gold Series Audio Caps - 115dB SNR DAC with Differential Amplifier - TI® NE5532 Premium Headset Amplifier (Supports up to 600 Ohm headsets) - Direct Drive Technology - EMI Shielding Cover - PCB Isolate Shielding - Supports DTS Connect
LAN	- Gigabit LAN 10/100/1000 Mb/s - Giga PHY Intel® I218V - Supports Wake-On-LAN - Supports Lightning/ESD Protection (ASRock Full Spike Protection) - Supports Energy Efficient Ethernet 802.3az - Supports PXE

Rear Panel I/O	- 1 x PS/2 Mouse Port - 1 x PS/2 Keyboard Port - 1 x eSATA Connector - 1 x Optical SPDIF Out Port - 4 x USB 2.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) - 4 x USB 3.0 Ports (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x RJ-45 LAN Port with LED (ACT/LINK LED and SPEED LED) - 1 x Clear CMOS Switch - HD Audio Jacks: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
ASRock USB 3.1/A+C	- 1 x USB 3.1 Type-A Port (10 Gb/s) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.1 Type-C Port (10 Gb/s) (Supports ESD Protection (ASRock Full Spike Protection))
Storage	- 10 x SATA3 6.0 Gb/s Connectors, support RAID (RAID 0, RAID 1, RAID 5, RAID 10 and Intel Rapid Storage 13), NCQ, AHCI, Hot Plug and ASRock HDD Saver Technology (S_SATA3_3 connector is shared with the eSATA port) (S_SATA3_2 connector is shared with Ultra M.2 Socket) * RAID is supported on SATA3_0 ~ SATA3_5 ports only. - 1 x SATA Express 10 Gb/s Connector (shared with SATA3_4 and SATA3_5) * Support to be announced - 1 x eSATA Connector, supports NCQ, AHCI and Hot Plug - 1 x Ultra M.2 Socket, supports M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen3 x4 (32 Gb/s)
Connector	- 1 x COM Port Header - 1 x TPM Header - 1 x Power LED Header - 2 x CPU Fan Connectors (1 x 4-pin, 1 x 3-pin) - 3 x Chassis Fan Connectors (1 x 4-pin, 2 x 3-pin) (Smart Fan Speed Control) - 1 x Power Fan Connector (3-pin) - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector (Hi-Density Power Connector) - 1 x HDD Saver Connector - 1 x PCIe Power Connector - 1 x Front Panel Audio Connector - 1 x Thunderbolt AIC Connector - 2 x USB 2.0 Headers (Support 4 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x USB 3.0 Header (Supports 2 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection))
BIOS Feature	- 2 x 128Mb AMI UEFI Legal BIOS with multilingual GUI support (1 x Main BIOS and 1 x Backup BIOS) - Supports Secure Backup UEFI Technology - ACPI 1.1 Compliant wake up events - SMBIOS 2.3.1 Support - CPU, DRAM, PCH 1.05V, PCH 1.5V, VPPM Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, Start8 (30 days trial)
Software and UEFI	Software - ASRock A-Tuning - ASRock Disk Health Report - ASRock USB Key - ASRock APP Charger - ASRock XFast LAN - ASRock XFast RAM - ASRock Restart to UEFI UEFI - ASRock Full HD UEFI - ASRock Instant Flash - ASRock Internet Flash - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock UEFI System Browser - ASRock UEFI Tech Service - ASRock Dehumidifier - ASRock Easy RAID Installer - ASRock Easy Driver Installer
Hardware Monitor	- CPU/Chassis temperature sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature) - CPU/Chassis Fan multi-speed control - Voltage monitoring: +12V, +5V, +3.3V, CPU Input Voltage, CPU Internal Voltages
OS	- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)
Accessories	- 1 x ASRock USB 3.1/A+C - 1 x ASRock SLI_Bridge_2S Card - 1 x ASRock 3-Way SLI-2S1S Bridge Card - Quick Installation Guide, Support CD, I/O Shield - 4 x SATA Data Cables - 1 x HDD Saver Cable - 1 x Screw for Ultra M.2 Socket

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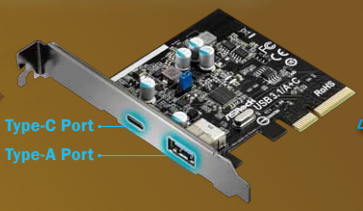
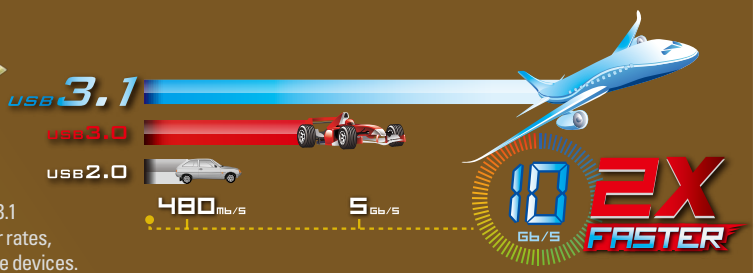
USB 3.1/A+C

Beyond Fast with USB 3.1



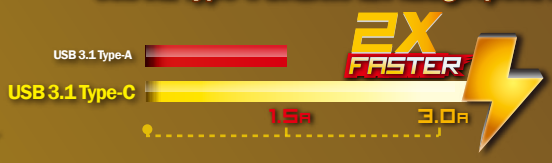
A PCIe x4 add on card that provides a Type A USB 3.1 connector for delivering up to 10Gbps data transfer rates, plus a Type C USB 3.1 connector for plugging mobile devices.



Benefits of USB 3.1 Type-C

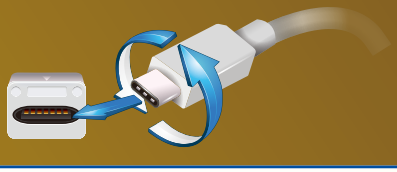
1 Faster device charging with power currents of 3.0 ampere

USB 3.1 Type-C doubles the charge speed !



2 Ultra durable supports over 10000 plug and removals

3 A reversible design that fits the connector either way

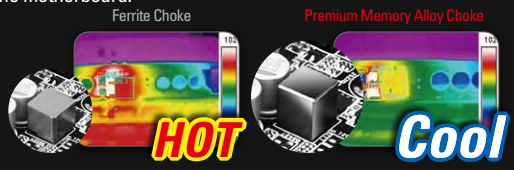


Super Alloy Motherboard

Stable and Reliable

Premium Memory Alloy Choke

Specially designed for memory power delivery, the new-gen alloy chokes feature a highly magnetic and heat resistant design, thus delivering more stable and reliable power to the motherboard.



Nichicon 12K Platinum Caps

Nichicon's supreme 12K platinum capacitors! The industry's longest lifespan – 12,000 hours.*

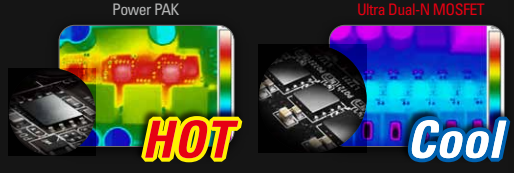
* Tested under industry standard 105 degree Celsius ambient temperature.

XXL Aluminum Alloy Heatsink Design

The extra large massive aluminum alloy heatsinks dramatically take away heat and cool down MOSFETs, chipsets.

Ultra Dual-N MOSFET

Combining two silicon dies into one MOSFET, Ultra Dual-N MOSFET provides larger die area and lower Rds(on), so the power supply for the CPU Vcore is more efficient.

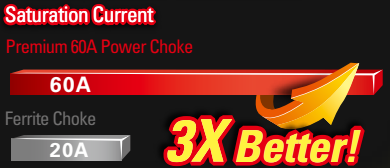


Sapphire Black PCB

Pure black PCB appearance. The new Sapphire Black PCB represents rock-solid quality and gives the motherboard a more mysterious touch.

Premium 60A Power Choke

Compared to traditional chokes, ASRock's new-gen premium power chokes effectively increase up to 3 times better saturation current, providing enhanced and improved Vcore voltage to the motherboard.



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12 PHASE DESIGN

Delivers smooth power to the CPU, bringing enhanced performance with the lowest temperature.

Ultra M.2

ASRock is the first in the world to implement PCIe Gen3 x4 M.2 sockets that pushes the speed up to 32Gb/s.

Ultra M.2 GEN3 X4 & SATA3

X Series OC Socket

Specially designed with more pins to unlock the hidden performance of the CPUs.

Digi Power

By adopting digital Pulse-width modulation (PWM), the ASRock motherboard can provide CPU Vcore voltage more efficiently and smoothly.

Purity Sound™ 2

Purity Sound™ 2 includes 7.1 CH HD audio with Realtek ALC1150 audio codec, 115dB SNR DAC with Differential Amplifier, TI® NE5532 Premium Headset Amplifier, cap less Direct Drive technology, EMI shielding cover, PCB isolate shielding and DTS Connect. As Nichicon audio capacitors are what every audiophile has been longing for on a PC, ASRock applied these high quality capacitors for Purity Sound™ 2.

Purity Sound™ 2 brings you:

- 115dB SNR
- Lower Noise
- Excellent Bass For All Headphones
- Supports up to 600ohm Headphones

ASRock APP Shop

We provide various apps and support software for users to download. You can easily optimize your system and keep your motherboard up to date with ASRock APP Shop.

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